

# Global Virtual Collaboration: How Cisco Connected Executives Worldwide for Strategic Meeting

Cisco video and collaboration solutions integrate with Web 2.0 technologies to reduce costs, avoid travel, and improve the meeting experience

**Cisco IT Case Study/Collaboration/Global Virtual Events:** This case study describes how Cisco IT supported a meeting of more than 3100 Cisco executives with a global virtual event. The 2009 Cisco Strategic Leadership Offsite meeting, delivered using Cisco® collaboration solutions and Web 2.0 technologies, reduced expenses by nearly 75 percent, delivered productivity and energy efficiency benefits through travel avoidance, and improved the experience for participants through online interaction, more sessions, and easier access to meeting content. Cisco customers can learn from Cisco IT's real-world experience to help support similar enterprise needs.

## BACKGROUND

The Cisco Strategic Leadership Offsite (SLO) meeting is the most important annual event for company executives and focuses on corporate strategies for the upcoming fiscal year.

“In the ‘real’ SLO, if you missed a session, you missed the whole experience. With a virtual meeting, the experience is just there, waiting to be had.”

**Trevor Rodriguez, Director  
Cisco Services Technical Support**

Previously, the meeting took place over two days, and participants and presenters traveled to meet near Cisco headquarters in San Jose, California. Among the drawbacks of this approach were travel time and expense, because many participants had to travel internationally. At the meeting, participants had to choose from multiple breakout sessions that were scheduled in each time slot, so executives could not easily attend all the presentations.

But the traditional offsite meeting naturally offered the advantages of personal contact and networking exchanges between executives during formal sessions, meals, and breaks. Participants looked forward to annually reconnecting with colleagues and talking face to face to other executives with whom they might not otherwise have the opportunity to meet.

<b>EXECUTIVE SUMMARY</b>
<b>BACKGROUND</b> <ul style="list-style-type: none"> <li>Strategic Leadership Offsite meeting is Cisco's most important annual executive event</li> </ul>
<b>CHALLENGE</b> <ul style="list-style-type: none"> <li>Deliver 2009 SLO meeting as virtual event for more than 3100 participants worldwide</li> </ul>
<b>SOLUTION</b> <ul style="list-style-type: none"> <li>Integrate Cisco video and collaboration products with registration system and virtual meeting environment from external vendors</li> </ul>
<b>RESULTS</b> <ul style="list-style-type: none"> <li>Reduced costs by nearly 75 percent</li> <li>Increased employee productivity and reduced emissions by avoiding travel</li> <li>Expanded meeting from two days to three days and served more participants</li> <li>Increased meeting content and access to live and recorded sessions</li> <li>Supported online interaction among presenters and participants</li> </ul>
<b>LESSONS LEARNED</b> <ul style="list-style-type: none"> <li>Plan to match meeting content and presentation capabilities with participant location, network capacity, and access devices</li> <li>Set appropriate expectations about technical capabilities of the virtual meeting solutions</li> <li>Implement a central support center and provide a single support document</li> </ul>
<b>NEXT STEPS</b> <ul style="list-style-type: none"> <li>Support virtual access to other Cisco internal and customer meetings</li> </ul>

## CHALLENGE

Like many enterprises facing the global recession in late 2008, Cisco sought to reduce costs across all of its operations. The company had already increased internal use of collaboration tools to reduce employee travel, so the question arose: "Why not eliminate travel for the SLO meeting and make it a virtual event?"

This question was both intriguing and daunting to consider because the Cisco IT team believed the SLO meeting would be the largest, most complex, and most content-rich virtual event ever attempted.

To support a virtual SLO meeting, Cisco IT had to solve several challenges in less than six months:

- Implement the tools and infrastructure to deliver bandwidth-intensive video broadcast, collaboration, and interactive sessions to multiple locations worldwide.
- Choose access, presentation, and collaboration technologies to serve the communication needs of meeting presenters and participants, while setting realistic expectations about differences in presentation capabilities compared to an in-person meeting.
- Accommodate employees who would attend from multiple world time zones and would use multiple access methods and devices.
- Help ensure network capacity and configuration to support the performance required for the highly demanding SLO meeting, while not negatively affecting network performance for the rest of the company.

## SOLUTION

More than 3100 Cisco leaders worldwide participated in the 2009 SLO meeting by using several Cisco solutions and Web 2.0 technologies. Cisco products included Cisco TelePresence™, Cisco TV, Cisco

WebEx Meeting Center™, and Cisco WebEx Event Center™ (Table 1).

**Table 1.** Cisco SLO Meeting Sessions Delivered by Integrated Set of Virtual Technologies and Interaction Capabilities

SLO Meeting Sessions	Attendee Time	Technology Used for Virtual Delivery	Interaction Capabilities
General Session	40%	65% via Cisco TelePresence and video meeting rooms 35% via Cisco TV Virtual Environment	Short Message Service (SMS) Text Polling Virtual Environment Chat Pre-SLO Blogs and Discussion Forums
Priority and Segment Breakout Sessions	30%	100% via Cisco WebEx Event Center and WebEx Meeting Center	SLO Blogs and Discussion Forums WebEx Polling Virtual Environment Chat
Priorities Fundamentals Breakout Sessions	10%	Virtual Environment On-Demand	Live and Group Chat
Leadership Exchanges Breakout Sessions	10%	60% via Cisco TelePresence 35% via WebEx Event Center and WebEx Meeting Center	Live Q&A Polling and Chat in WebEx Event Center and WebEx Meeting Center
Leadership Development Breakout Sessions	10%	Cisco TV WebEx Event Center and WebEx Meeting Center Virtual Environment	Polling Live and Group Chat Pre-SLO Blogs and Discussion Forums
Leader Lounge	Experiment	Virtual Environment	Global Blogging Discussion Forums and Chat Leader Reward Point System

Cisco IT also customized solutions from external vendors for online event registration and the virtual meeting environment. The customized SLO virtual environment provided an online convention center or exhibit hall where participants could access their personal meeting agendas, attend sessions, interact with presenters and other participants, and obtain support. Other features included personal chat rooms, online audience polls, and messaging-based Q&A during the live session broadcasts. Participants could also create and submit their own videos and access stored video and session files. All of these activities occurred over the Cisco network.

### General Session

The SLO meeting offered general sessions for all participants and numerous breakout sessions for smaller groups of executives. Each general session was streamed as a live broadcast from Cisco studios in San Jose and Bangalore, with up to seven simultaneous connections that used as many as 14 codecs for point-to-point transmission to eight

PRODUCT LIST
<b>Video and Collaboration</b> <ul style="list-style-type: none"> <li>• Cisco TelePresence</li> <li>• Cisco TV</li> <li>• Cisco WebEx Meeting Center</li> <li>• Cisco WebEx Event Center</li> </ul>

separate locations. Moderated online chats after each general session used Cisco TelePresence systems in point-to-point calls between two or three locations.

During the broadcast, 65 percent of participants viewed the general session in Cisco TelePresence rooms or video-equipped meeting rooms in Cisco offices worldwide. The remaining 35 percent of participants watched sessions on their PCs (Figure 1).

Figure 1. Cisco Network Connected SLO Meeting Participants Worldwide for General Broadcasts and Breakout Sessions



## Breakout Sessions

A total of 127 small group sessions served 25–300 participants each during the three-day SLO meeting. In the virtual event, some of these breakout sessions were conducted using Cisco TV and Cisco TelePresence, but most used the Cisco WebEx™ Meeting Center and Cisco WebEx Event Center platforms.

Breakout sessions with large audiences were conducted as one-way sessions that combined the presenter's audio, photograph, and slides through Cisco WebEx Event Center. Two-way communication was not possible for large sessions, because each participant would need a dedicated port, and Cisco IT had allocated only 7200 ports at the data center in Mountain View, California, and 6000 ports in London for all WebEx conferences across the company. For these sessions, streaming video was not permitted because the associated traffic volumes would have negatively affected overall network performance. For sessions involving a small number of participants, Cisco WebEx Meeting Center provided capabilities for two-way interaction.

## Event Planning

Supporting such a large-scale virtual environment required a significant planning effort for Cisco IT, with 90 percent of the total time spent on event planning and only 10 percent spent on support during the event. In total, Cisco IT employees spent 3673 work hours on the SLO event, equating to 7.65 fulltime staff.

Business processes were identified first, then mapped to the appropriate Cisco technologies to address the meeting's goals and requirements. A critical step in the business process was to create cross-functional work plans, which defined the tasks and roles of all groups that needed to be involved in planning the SLO event. Group members were drawn from Cisco IT and business departments, including network and data center, video collaboration and technology support, internal help desk, corporate security, and executive communications.

Before the event, Cisco IT gathered data on the work location of participants by country and city. However, the team was not able to determine specific points where participants would access the event, such as from a Cisco office or an employee's home. Although limited, this data helped the Cisco IT teams prepare for the impact of the event on the Cisco network and on the company's WebEx infrastructure.

Network planners expected the biggest impact of the SLO meeting would come from Cisco TelePresence, because of its very high-quality audio and video, as well as WebEx Event Center, because it uses unicast technology. After analyzing the projected user traffic flows for each site, Cisco IT determined that the quality of service (QoS) currently defined for Cisco TelePresence on the Cisco network would meet the demand of the SLO sessions.

For WebEx Event Center, Cisco IT determined it was best to keep the audio and data streams in the same traffic class, rather than tagging the audio packets for a separate voice class. The default traffic class for the Cisco network was chosen to carry WebEx Event Center traffic, because this class offered enough bandwidth to serve the SLO meeting without impairing overall network performance.

Equipment and wiring in the meeting rooms also were evaluated to help ensure they would be adequate for the large gatherings at the major Cisco offices. Additional LAN switches and network ports were installed, and the capacity of nearby wireless access points was checked by Cisco IT to provide adequate network connectivity.

## RESULTS

By changing the SLO meeting from an in-person to a virtual event, Cisco realized significant cost reductions, productivity gains from avoided travel, an expanded meeting schedule, and improved access to content for meeting participants. These benefits were realized with very few user support issues and minimal performance impact on the Cisco network.

As a virtual event, Cisco estimates the 2009 SLO meeting cost only US\$680 per person, which is a savings of 75 percent from the cost of \$2800 per participant the previous year. Overall, Cisco realized a total \$2.8 million cost savings due to reduced travel and hotel expense. These expense reductions were achieved even as 600 more employees participated and the meeting was expanded from two days to three days.

Participating Cisco executives reported a 90 percent reduction in time spent traveling to the meeting, because for many it meant just a trip to their local Cisco office. The ability to avoid more extensive travel returned an average of 10.86 hours per day to each participant and reduced carbon emissions associated with the meeting by 99 percent.

Table 2 shows key statistics for the virtual SLO meeting.

**Table 2.** Cisco 2009 SLO Meeting Statistics

Cost Statistics	Event Statistics	Content Statistics
\$2.8 million cost reduction compared to previous year.	3100 participants, an increase of 600 over the previous year. Of this number, 1121 participants attended sessions in-person at a Cisco office.	10,752 hours total viewing time for sessions during the event.
10.86 hours per day time gained for each participant from travel reduction.	139 collaborative breakout sessions, with an average 4.3 breakout sessions attended by each participant	129,145 total downloads and video views from the SLO content library.
3673 total Cisco IT work hours, equivalent to 7.65 full-time employees.	645 online peer-to-peer chat sessions. 10 moderated chat sessions with 3,482 participants	19.5 video views, 15.9 document downloads, and 4.3 WebEx sessions on average for each meeting participant.
	0.72 support cases per participant	10,000 questions were submitted online; many answered during live sessions and others archived for followup.

As registered participants used the virtual meeting environment to watch presentations, download content, and chat with colleagues, they received points on a collaboration leader board in a special area called the Leader's Lounge. During the meeting, the top-ten points leaders were tracked and dynamically displayed in real time on the leader

board. This game-like approach encouraged people to use the collaboration tools and interactively participate in sessions throughout the event.

After the event, participants had continued access to SLO meeting content online, which allowed them to view more sessions than would be possible at an in-person event. Typically stored as a video-on-demand (VoD) file, this content also allowed meeting planners to give all Cisco employees access to selected sessions.

Says Trevor Rodriguez, director of Cisco Services Technical Support in the United Kingdom, "I missed two sessions because of schedule conflicts but was able to go back in later and get whatever I missed. In the 'real' SLO, if you missed a session, you missed the whole experience. In a virtual meeting, the experience is just there, waiting to be had."

### **Network and Technology Performance**

Throughout the three-day event, the Cisco network proved it could handle the virtual SLO meeting without affecting the experience for participants or performance for the rest of the company. In addition to routine network monitoring, Cisco network engineers used a script to monitor QoS levels at regular intervals. "Any drop in QoS would have been an early signal of a network problem," says Heath Quinn, a Cisco IT network engineer. "We prepared for this possibility by being ready to switch the SLO traffic to a higher-priority queue if necessary, but the QoS levels remained high, and we never had to activate that plan."

Cisco IT performed peak-load tests the week before the event using WebEx Event Center to replicate the participant experience and assessing the potential network performance during the SLO meeting. "Although the short time frame before the SLO meeting meant we were only able to perform this testing once, normally you would run several tests as an iterative process before the meeting to adjust network parameters as necessary in response to increasing participant registrations and changes in meeting plans," says Dan Price, Cisco IT network engineer.

### **Cisco IT Support**

Although Cisco IT created a central support group that was activated during the SLO meeting, there were very few support cases given the scope of the event. The most common questions were about event registration, with only 82 issues related to the presentation technologies or the network. Of these cases, most involved providing simple answers to user questions about starting or joining a virtual session. Overall, the SLO event generated less than one (0.72) support case per participant.

## **LESSONS LEARNED**

The large scale and complexity of the SLO meeting yielded insights for Cisco IT on how best to prepare for and support future virtual meetings.

### **Planning**

- Complexity of a virtual event requires much more effort to produce than a live event, but this expense is more than offset by avoided travel costs for participants.
- Identify single points of contact for both the IT and the executive teams, and help event planners understand the role and importance of IT for a virtual event.
- To determine network capacity requirements, create an audience analysis that identifies participant locations (home office, corporate office) and access methods (VPN or wireless, operating system and browser versions). Also identify the current capacity and configuration of equipment, room facilities, and the network to identify any changes necessary to the infrastructure or event activities.
- Create focused planning and support teams for each network and technology area.

- Develop a single, integrated plan for the entire event to track the many elements that must cooperate and synchronize.
- After the event, identify repeatable processes that can be applied to future events.
- Require meeting participants to register for the event to allow for planning of meeting rooms, network facilities, and equipment. However, expect that some participants will not register until the event begins.
- Check event plans against any expected installations or upgrades of network circuits or equipment. Accelerate or delay those infrastructure changes as appropriate.
- Assign TelePresence rooms and broadcast studios to presenters to simplify room planning and preparation as well as equipment and network support. Advance assignments also avoid unnecessary booking of TelePresence rooms that are also in high demand for customer and other company meetings.

### **Technology**

- Set appropriate expectations among presenters and meeting organizers about the technical capabilities of the virtual meeting solutions, so they can adjust presentation format and style. Some technical capabilities that may work well for a small group may not work easily for a very large meeting that involves thousands of participants.
- Verify any differences in configurations, usage instructions, and support requirements for Apple computer users.
- Perform peak-load testing well before the event date to identify any potential network bottlenecks and access issues. Testing should be conducted for individual meeting sites as well as integrated, end-to-end testing across the network.
- Give local teams a set of standard instructions, configurations, and other meeting preparation tasks to promote accuracy and consistency among sites.

### **Support**

- Implement a central support center with dedicated telephone numbers to handle all support issues quickly.
- Identify a single point of contact at each local site and help ensure that local support teams know to communicate any issues to the central team, because a local issue may have a broader impact on the event.
- Create a single document or wiki (“playbook”) of support procedures, frequently asked questions (FAQs), and contact information for members of the support team.
- Create online FAQs for event presenters and participants.

### **NEXT STEPS**

Cisco plans to offer virtual access for other large-scale internal and customer meetings. For example, Cisco Live 2009, the annual user conference, offered options for both in-person and virtual access to presentations and interactive sessions. Cisco also delivered its 2009 global sales meeting, which involves 20,000 participants, as a virtual event with access from Cisco offices worldwide.

## FOR MORE INFORMATION

For a participant's perspective on the virtual SLO meeting, see the blog posting by Cisco senior vice president Carlos Dominguez at: [http://blogs.cisco.com/news/comments/the\\_future\\_is\\_here...the\\_virtual\\_world\\_for\\_large\\_meetings/](http://blogs.cisco.com/news/comments/the_future_is_here...the_virtual_world_for_large_meetings/)

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